GAU 1645

PTO/SB/21 (08-00) Please type a plus sign (+) inside this box -> + Approved for use through 10/31/2002. OMB 0651-0031 U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
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U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE Application Numb r 09/650,337 TRANSMITTAL Filing Dat August 28, 2000 **FORM** First Named Inv ntor William Dower (to be used for all correspondence after initial filing) Group Art Unit Unassigned Unassigned Examiner Name Total Number of Pages in This Submission Attorney Docket Number 16528A000461 ENCLOSURES (check all that apply) After Allowance Communication to Assignment Papers Fee Transmittal Form (for an Application) Group Appeal Communication to Board of Fee Attached Drawing(s) Appeals and Interferences Appeal Communication to Group Amendment / Response Licensing-related Papers (Appeal Notice, Brief, Reply Brief) Petition Routing Slip (PTO/SB/69) After Final Proprietary Information and Accompanying Petition Petition to Convert to a Affidavits/declaration(s) Status Letter Provisional Application Power of Attorney, Revocation Other Enclosure(s) Extension of Time Request Change of Correspondence Address (please identify below): Form 1449 Terminal Disclaimer Express Abandonment Request Request for Refund Information Disclosure Statement CD, Number of CD(s) The Commissioner is authorized to charge any additional fees to Certified Copy of Priority Remarks Deposit Account 20-1430. Document(s) Response to Missing Parts/ Incomplete Application Response to Missing Parts under 37 CFR 1.52 or 1.53 SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT Firm Townsend and Townsend and Crew LLP and Jeffrey/J, King Reg No. 38,515 Individual name Signature Date May **CERTIFICATE OF MAILING** I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231 on this date: May 1, 2001 Typed or printed name Linda-M. Povinelli Signature Date May 1, 2001

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TOWNSEND and CREW LDR

PATENT

Attorney Docket No.: 16528A-000461US Client Reference No.: 1003E (Parent)

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

William J. Dower, et al.

Application No.: 09/650,337

Filed: August 28, 2000

For: PEPTIDE LIBRARY AND

SCREENING SYSTEMS

Examiner:

Unassigned

Art Unit:

1645

INFORMATION DISCLOSURE STATEMENT UNDER 37 CFR §1.97 and

§1.98

Assistant Commissioner for Patents Washington, D.C. 20231

Sir:

The references cited on attached form PTO-1449 are being called to the attention of the Examiner. In accordance with 37 CFR §1.98(d), copies of the references can be found in Application No. 08/914,403 filed August 19, 1997 (now abandoned); and 07/541,108, filed June 20, 1990, now U.S. Patent No. 5,723,286 (Attorney Docket No. 16528A-000461US). It is respectfully requested that the cited references be expressly considered during the prosecution of this application, and the references be made of record therein and appear among the "references cited" on any patent to issue therefrom.

Applicants believe that their invention as claimed is patentable over the above references taken alone or in any combination. As provided for by 37 CFR 1.97(g) and (h), no inference should be made that the information and references cited are prior art merely because they are in this statement and no representation is being made that a search has been conducted

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William J. Dower, et al. Application No.: 09/650,337

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or that this statement encompasses all the possible relevant information. No inference should be drawn as to the pertinence of the references based on the order in which they are presented.

Applicant believes that <u>no fee is required</u> for submission of this statement, since it is being submitted prior to the first Office Action. However, if a fee is required, the Commissioner is authorized to deduct such fee from the undersigned's Deposit Account No. 20-1430. Please deduct any additional fees from, or credit any overpayment to, the above-noted Deposit Account.

Respectfully submitted,

Dated:

May 1, 200

Jeffrey J. King Reg. No. 38,515

TOWNSEND and TOWNSEND and CREW LLP

Two Embarcadero Center, 8th Floor San Francisco, California 94111-3834

Tel: 206-467-9600 Fax: 415-576-0300

JJK:lmp

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Page 1 of 3 FORM PTO-1449 (Modified) Attorney Docket No.: 16528A-000461US Application No.: 09/650,337 LIST OF PATENTS AND PUBLICATIONS FOR Applicant: William J. Dower, et al. APPLICANT'S INFORMATION DISCLESURE Filing Date: August 28, 2000 Group: STATEMENT (Use several sheets if necessary) Reference Designation U.S. PATENT DOCUMENTS **Examiner Initial** Document No. Name Class Sub-class Filing Date (If Appropriate) AA 4,359,535 11/16/82 Pieczenik AB 4,593,002 06/03/86 Dulbecco 05/23/89 AC4,833,092 Geysen 4,910,140 03/20/90 AD Dower 5,096,815 AE 03/17/92 Ladner et al. TECH CENTER 1600/2900 ΑF 5,223,409 06/29/93 Ladner et al. FOREIGN PATENT DOCUMENTS Document No. Date Country Class Sub-class Translation (Yes/No) AG 06/10/87 GB 2,183,661 AH 87/01374 03/12/87 WO 88/05085 07/14/88 WO ΑI ΑJ 88/06630 09/07/88 WO ΑK 89/06694 07/27/89 WO AL 90/02809 03/22/90 WO 05/17/90 WO **AM** 90/05144 AN 90/14424 11/29/90 WO 90/14430 AO 11/29/90 WO AP 90/14443 11/29/90 WO AQ 91/17271 11/14/91 WO AR 91/18980 12/12/91 WO AS WO 92/01047 01/23/92 AT 92/07077 04/30/92 WO ΑU 92/09690 06/11/92 WO AV 90/15677 09/17/92 WO ΑW 92/15679 09/17/92 WO OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.) AXAruffo and Seed (1987), Proc. Natl. Acad. Sci. USA 84:8573-8577, "Molecular cloning of a CD28 cDNA by a high-efficiency COS cell expression system" AY Barbas et al. (1991), Proc. Natl. Acad. Sci. USA 88:7978-7982, Assembly of combinatorial antibody libraries on phase surfaces: The gene III site" ΑZ Barrett et al. (1992), Anal. Biochem. 204:357-364, "Selective enrichment and characterization of high affinity ligands from collections of random peptides on filamentous phage" BA Bass et al. (1990), Proteins: Structure, Function, and Genetics 8:309-31 4, "Hormonephage: An enrichment method for variant proteins with altered binding properties" **EXAMINER** DATE CONSIDERED

	MAN E		Page 2 of 3	
FORM PTO-144	9 (Modified)	Attorney Docket No.: 16528A-000461US	Application No.: 09/650,337	
LIST OF PATER	NTS AND PUBLICATIONS FOR INFORMATION DISCLOSURE	Applicant: William J. Dower, et al.		
	Use several sheets if necessary)	Filing Date: August 28, 2000	Group:	
BB	Better et al. (1988), Science 240:1041-1043, "Escherichia coli secretion of an active chimeric antibody fragment"			
BC	Boeke and Model (1982), <u>Proc. Natl. Acad. Sci. USA</u> 79:5200-5204, "A prokaryotic membrane anchor sequence: Carboxyl terminus of bacteriophage fi gene III protein retains it in the membrane"			
BD	Bottger (1988), <u>BioTechniques</u> 6:878-80, "High-efficiency generation of plasmid cDNA libraries using electrotransformation"			
BE	Cesareni (1992), FEBS Letters 307:66-70, "Peptide display on filamentous phage capsids"			
BF	Cwirla et al. (1990), Proc. Natl. Acad. Sci. USA 87:6378-6382, "Peptides on phage: A vast library of peptides for identifying ligands"			
BG	de la Cruz et al. (1988), <u>J. Biol. Chem.</u> 263(9):4318-4322, "Immunogenicity and epitope mapping of foreign sequences via genetically engineered filamentous phage"			
BH	Devlin et al. (1990), Science 249:404-406, "Random peptide libraries: A source of specific protein binding molecules"			
BI	Dower et al. (1988), Nucl. Acids Res. 16(13):6127-6145, "High efficiency transformation of E. coli by high voltage electroporation"			
BJ	Felici et al. (1991), <u>J. Mol. Biol.</u> 222:301-310, "Selection of antibody ligands from a large library of oligopeptides expressed on a multivalent exposition vector"			
BK	Garrard et al. (1991), <u>Bio/Technology</u> 9:1373-1377, "FAB assembly and enrichment in a monovalent phage display system"			
BL	Geysen et al. (1987) J. Immunol. Meth. 102:259-274, "Strategies for epitope analysis using peptide synthesis"			
BM	Goldsmith and Konigsberg (1977), <u>Biochem</u> . 16(12):2686-2694, "Adsorption protein of the bacteriophage fd: Isolation, molecular properties, and location in the virus"			
BN	Greenwood et al. (1991), <u>J. Mol. Biol.</u> 220:821 -827, "Multiple display of foreign peptides on filamentous bacteriophage"			
BO	Harlow et al. (1988), Antibodies: A Laboratory Manual, Cold Spring Laboratory Press, Cold Spring Harbor, NY, pp. 23-35, "Antibody antigen interactions"			
BP	Heery and Dunican (1989), Nucl. Acids Res. 17(19):8006, "Improved efficiency M13 cloning using electroporation"			
BQ	Hoogenboom et al. (1991), Nucl. Acids Res. 19(15):4133-4137, "Multi-subunit proteins on the surface of filamentous phage: methodologies for displaying antibody (Fab) heavy and light chains"			
BR	Huse et al. (1989), Science 246:1275-1281, "Generation of a large combinatorial library of the immunoglobulin repertoire in phage lambda"			
BS	II'ichev et al. (1990), Molekulyarnaya Biologiya 24:530-535, "M13 filamentous bacteriophage in protein engineering"			
BT	Jacobs et al. (1990), Nucl. Acids Res. 18(6):1653, "High-efficiency electro-transformation of Escherichia coli with DNA from ligation mixtures"			
BU	Kang et al. (1991), Proc. Natl. Acad. Sci. USA 88:4363-4366, "Linkage of recognition and replication funtions by assembling combinatorial antibody Fab libraries along phage surfaces"			
BV	McCafferty et al. (1990), Nature 348:552-555, "Phase antibodies: Filamentous phage displaying antibody variable domains"			
BW	Meo et al. (1983), <u>Proc. Natl. Acad. Sci. USA</u> 80:4084-4088, "Monoclonal antibody to the message sequence Tyr-Gly-Gly-Phe of opioid peptides exhibits the specificity requirements of mammalian opioid receptors"			
BX	Oliphant et al. (1986), Gene 44:177-183, "Cloning of random-sequence oligodeoxynucleotides"			
BY	Parmley and Smith (1988), Gene 73:305-31 8, "Antibody-selectable filamentous fd phage vectors: Affinity purification of target genes"			
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FORM PTO-144	19 (Modified)	Attorney Docket No.: 16528A-000461US	Application No.: 09/650,337	
FORM PTO-1449 (Modified) Attorney Docket No.: 16528A-000461US Application No.: 09/650,33* Applicant: William J. Dower, et al.				
APPLICANT'S INFORMATION DISCLOSURE STATEMENT (Use several sheets if necessary)		Filing Date: August 28, 2000	Group:	
BZ	Parmley and Smith (1989), <u>Adv. Exp. Med. Biol.</u> 251:215-218, "Filamentous fusion phage cloning vectors for the study of epitopes and design of vaccines"			
CA	Scott et al. (1990), in <u>Advances in Gene Technology: The Molecular Biology of Immune Diseases and the Immune Response</u> , Streilein et al. (eds), IRL Press, New York, pp. 224, "An epitope library"			
CB	Scott and Smith (1990), Science 249:386-390, "Searching for peptide ligands with an epitope library"			
cc	Shigekawa and Dower (1988), <u>BioTechniques</u> 6(8):742-751, "Electroporation of eukaryotes and prokaryotes: A general approach to the introduction of macromolecules into cells"			
CD	Skerra and Pluckthun (1988), <u>Science</u> 240:1038-1041, "Assembly of a functional immunoglobulin F _v Fragment in Escherichia coli"			
CE	Smith et al. (1990), <u>J. Cell. Biochem.</u> , Supp. 14C:246, abst. CK319 (19th Ann. Mgt., UCLA Symp. Mol. Cell. Biol., 3 Feb to 11 Mar), "An epitope library"			
CF	Smith (1985), Science 228:1315-1317, "Filamentous fusion phage: Novel expression vectors that display cloned antigens on the virion surface"			
CG	Ward et al. (1989), Nature 341:544-546, "Binding activities of a repertoire of single immunoglobulin variable domains secreted from Escherichia coli"			
СН	Wilson and Gough (1988), Nucl. Acids Res. 16(24):11820, "High voltage E. coli electro transformation with DNA following ligation"			
CI	Young and Davis (1983), Science 222:778-782, "Yeast RNA polymerase II genes: Isolation with antibody probes"			
CJ	Zacher et al (1980), Gene 9:127-140, "A new filamentous phage cloning vector: fd-tet"			
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EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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